

Attachment 2.21 - “Model” Ordinance on Coal Tar Sealants

Overview

Parking lots and driveways dominate the urban landscape across McHenry County, and sealcoating these surfaces is widely recommended. Among the most widely used sealcoats, are those containing refined coal tar¹. Coal tar sealants contain high levels of polycyclic aromatic hydrocarbons (PAHs), which are toxic to fish and other aquatic life. In addition, PAH's are a known carcinogen².

Recent studies³ show that coal tar sealcoat products used as a means to protect asphalt pavement is a significant source of PAH contamination in our lakes and streams. Studies⁴ in Austin, TX and Puget Sound near Olympia, WA demonstrate that the PAH compounds run off into lakes and streams and are toxic to fish. Additional information shows that PAHs can be detected in blood or urine soon after exposure⁵.

The model ordinance prohibits the use, sale or retail display of sealcoat products within McHenry County (applies to all unincorporated McHenry County and all municipalities that have adopted this ordinance) that are labeled as containing coal tar. It also requires retailers to prominently display information about the ordinance where customers make their driveway sealant purchases. There is an ordinance exemption for those who intend to apply sealcoat products on a surface that is not located within McHenry County. Sellers must require purchasers seeking the exemption to complete an exemption form⁶.

The proposed ordinance regulating the use and sale of coal tar sealants within McHenry County is attached. The associated fact sheet and exemption form are also attached and available at www.mchenryh2o.com.

¹ Van Metre, P.C.; Mahler, B.J.; Wilson, J.T.; Burbank, T.L. *Collection and Analysis of Samples for Polycyclic Aromatic Hydrocarbons in Dust and Other Solids Related to Sealed and Unsealed Pavement from 10 Cities Across the United States, 2005-07*; USGS Data Series 361; U.S. Geological Survey: Denver, CO, 2008; 5 pp; <http://pubs.usgs.gov/ds/361/>. (accessed November 2008)

² U.S. Department of Health and Human Services. *Report On Carcinogens*, 10th ed.; National Toxicology Program, Public Health Service : Washington, DC, December 2002.

³ Van Metre, P.C.; Mahler, B.J.; Wilson, J.T.; 2008, *PAHs Underfoot: Contaminated Dust from Coal-Tar Sealcoated Pavement is Widespread in the United States*. Downloaded from <http://pubs.acs.org> on November 19, 2008.

⁴ Lake In The Hills, Illinois was a study site for footnotes 1 and 3. “Concentrations of PAHs in soil and street dust near sealcoated pavement in Lake in the Hills exceeded those near unsealcoated pavement by a factor of from 6.4 to 39 (street dust) and 2.3 to 14 (soil).” (see Table 2 from footnote 3). In addition, 29/30 driveways samples had coal tar and 15-20% of sub-watershed was impacted by coal tar.

⁵ Wisconsin Department of Health Services. Chemical Fact Sheet: *Polycyclic Aromatic Hydrocarbons*. <http://dhs.wisconsin.gov/eh/chemfs/fs/PAH.htm>

⁶ Exemption form is available at www.mchenryh2o.com

Polycyclic Aromatic Hydrocarbon (PAHs)

Quick Facts

Polycyclic Aromatic Hydrocarbon Compounds Are Harmful to Aquatic and Human Life

- Several PAHs are suspected human carcinogens.
- PAHs are very persistent in the environment.
- Austin, Texas biological studies revealed a loss of species and decreased number of organisms.
- Puget Sound Ambient Monitoring Program found the following related to the presence of PAHs:
 - o Liver lesions and tumors in fish.
 - o Liver problems led to reproductive impairment
 - o Malformations in fish embryos and embryonic cardiac dysfunction.
 - o Reduction in aquatic plants (Eelgrass) that provide fish habitat.

Coal Tar Sealcoat a Significant Source of PAHs

- Coal Tar Sealcoat products contain as much as 30% coal tar by weight.
- Coal tar contains 50% or more PAHs by weight.
- Friction of automobile tires causes sealcoat to flake off. Precipitation running off surfaces carries the particles into storm sewers that empty into lakes and streams.
- City of Austin, TX and USGS collaborated on study: Parking lots with coal-tar sealcoat yielded 65 times more PAH than on unsealed lots in simulated rain events.

Coal Tar and PAHs are Prevalent in McHenry County

- It takes about 450 gallons of sealcoat to apply a single coat to one acre of parking lot. Typically two coats are applied.
- Applicators suggest reapplication of sealcoat every two to three years.
- The city of Madison, Wisconsin estimates that about 300,000 gallons of sealcoat are applied every year in the Madison area. Austin, Texas estimates 600,000 gallons are used.

Actions Taken:

- Lowes and Home Depot Home Improvement stores have discontinued the sale of Coal Tar Sealants nationwide.
- The City of Austin, TX passed an ordinance in 2005 prohibiting the use and sale of CTS
- Dane County, WI passed similar ordinance in 2007

Alternative Products Available

- Asphalt sealcoat
- Latex modified asphalt sealer (Master Guard®)

Resources on the Web

- <http://pubs.usgs.gov/fs/2005/3147>
- www.ci.austin.tx.us/watershed/coaltar_main.htm
- <http://198.238.33.67/fish/psamp/study.htm>
- http://www.esw.org/news/archives/2005/08/cars_replacing_industry_as_lea.php
- <http://www.nwfsc.noaa.gov/research/divisions/ec/ecotox/fishneurobiology/cardio.cfm>
- http://water.usgs.gov/nawqa/asphalt_sealers.html

ORDINANCE NO. XXX

**AMENDING CHAPTER XXX OF THE (County or Municipality) CODE OF ORDINANCES
REGULATING THE APPLICATION AND SALE OF
COAL TARE SEALCOAT PRODUCTS**

WHEREAS, the (County or Municipality), finds that McHenry County's water resources are a natural asset, which enhance the environmental, recreational, cultural and economic resources of the area and contribute to the general health and welfare of the public.

WHEREAS, finds that polycyclic aromatic hydrocarbons (PAHs), which are contained in coal tar sealants, can be carried by stormwater and other run off into the water resources of McHenry County.

WHEREAS, PAHs are an environmental concern because they are toxic to aquatic life, resulting in a loss of species and a decreased number of organisms.

WHEREAS, environmental impacts can be minimized and pavements can be maintained by utilizing alternative products, absent PAHs.

WHEREAS, the (County or Municipality) finds that regulating the amount of contaminants, including Polycyclic Aromatic Hydrocarbons (PAHs) contained in coal tar sealcoat products, entering the water resources of the (County or Municipality) will improve and protect the water quality of (County or Municipality) and neighboring water resources.

NOW, THEREFORE, BE IT ORDAINED by the (insert title of elected representative) and Board of Trustees of the (County or Municipality), McHenry County, Illinois, as follows:

SECTION 1: Title (insert number) of the (County or Municipality) Code is amended to add a new Chapter (insert number) to read:

CHAPTER XXX. COAL TAR PAVEMENT PRODUCTS

XXX-1: DEFINITIONS

- (1) COAL TAR is a byproduct of the process used to refine coal. Coal tar contains high levels of polycyclic aromatic hydrocarbons (PAHs).
- (2) COAL TAR PAVEMENT PRODUCT means a material that contains coal tar and is for use on an asphalt or concrete surface, including a driveway or parking area.

- (3) POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) are a group of organic chemicals that are present in coal tar and are an environmental concern because they are toxic to aquatic life.
- (4) SEALCOAT is a black liquid that is sprayed or painted on asphalt pavement in an effort to protect and beautify the asphalt. Most sealcoat products are coal-tar or asphalt based.
- (5) DIRECTOR means the director of the (insert department name).

XXX-2 ENFORCEMENT.

Violations of this ordinance will be enforced by the (County or Municipality).

XXX-3 REGULATION OF THE APPLICATION AND SALE OF SEALCOAT PRODUCTS CONTAINING COAL TAR.

- (A) Except as provided in Section XXX-4 (*Exemptions*), No person shall apply any sealcoat product within (County or Municipality) that is labeled as containing coal tar.
- (B) No person shall sell, offer to sell, or display for sale any sealcoat product within (County or Municipality) that is labeled as containing coal tar.
- (C) Any person who sells pavement sealcoat products shall prominently display, in the area where such pavement sealcoat products are sold, a notice that contains the following language: "The application of coal tar sealcoat products on driveways, parking lots and all other paved surfaces in (County or Municipality) is prohibited by Chapter XXX of the (enter name) Code of Ordinances. Coal tar is a significant source of Polycyclic Aromatic Hydrocarbons (PAHs), a group of organic chemicals that can be carried by stormwater and other run off into the water resources of McHenry County. PAHs are an environmental concern because they are toxic to aquatic life."
- (D) A person who owns property on which a coal tar pavement product is used is presumed to have used a coal tar pavement product in violation of this section.
- (E) Any person, who applies, sells, offers to sell or displays for sale any sealcoat product within (County or Municipality) that is labeled as containing coal tar is presumed to have applied, sold, offered to sell or displayed the product in violation of this section.

XXX-4: EXEMPTIONS.

The director may exempt a person from a requirement of this chapter if the director determines that:

- (1) The sale of a sealcoat product containing coal tar to a person who intends to apply the product on a surface that is not located within (County or Municipality) is permitted under the following conditions:
 - a. The seller requires the purchaser to complete and sign a form, to be provided by the Water Resource Division of the County of McHenry, that includes the purchaser's name, address, phone number, date of purchase, quantity purchased and a statement that the coal tar sealcoat product will not be applied on a surface that is located within (County or Municipality).
 - b. The seller retains the completed form for a period of not less than three (3) years from the date of sale and allows the inspection and copying of the form by (County or Municipality) staff upon request.
- (2) The Director of (insert title of appropriate department) may exempt a person from the requirements of section XXX-3 if the person is conducting *bona fide* research concerning the effects of a coal tar sealant product on the environment and the use of the coal tar product is required for said research.

XXX-5: PENALTY.

- (A) Any person who violates XXX-3 by applying a coal tar sealant product at his or her residence shall be subjected to a fine not to exceed \$500.
- (B) Each day that a violation occurs or continues is a separate offense and subject to an additional fine.
- (C) Any commercial sealcoat product applicator, residential or commercial developer, industrial or commercial owner, or any other person, other than a person identified under sub. (A) above who violates XXX-3, shall be subject to a fine of \$100 for the first violation within a twelve month period, \$300 for the second violation within a twelve month period, and \$500 for the third and each subsequent violation within a twelve month period.

SECTION 2: If any section, paragraph, subdivision, clause, sentence or provision of this Ordinance shall be adjudged by any Court of competent jurisdiction to be invalid, such judgment shall not affect, impair, invalidate or nullify the remainder thereof, which remainder shall remain and continue in full force and effect.

SECTION 3: All ordinances or parts of ordinances in conflict herewith are hereby repealed to the extent of such conflict.

SECTION 4: This ordinance shall be in full force and effect ten (10) days after its passage, approval, and publication in pamphlet form, as provided by law.

Ayes:

Nays:

Absent:

Abstain:

APPROVED:

(SEAL)

ATTEST: _____

Passed: _____

Approved: _____

Published: _____